

CLAIMS

1 1. A computer-implemented remote device monitoring system, comprising:
2 a processor; and
3 a computer readable medium encoded with processor readable instructions that when
4 executed by the processor implement,
5 a device information collecting mechanism configured to collect information from a
6 device connected to a first network using a network management protocol;
7 a device information sending mechanism configured to send the information to a
8 monitor connected to a second network via a wide area network using a protocol; and
9 a device information receiving mechanism configured to receive the information
10 using the protocol and store the information in a digital repository connected to the second
11 network.

1 2. The system of Claim 1, wherein the information comprises at least one of status
2 information corresponding to the device and configuration information corresponding to the
3 device.

1 3. The system of Claim 2, wherein the device comprises a printer.

1 4. The system of Claim 2, wherein status information comprises at least one of a low
2 paper indicator, a no paper indicator, a low toner indicator, a no toner indicator, door open
3 indicator, a jammed indicator, an offline indicator, and a service requested indicator.

1 5. The system of Claim 2, wherein configuration information comprises at least one
2 of a manufacturer of the device, a model of the device, a serial number of the device, a media
3 access control address, an Internet protocol address, a company name, a street address, a city,
4 a state, a postal code, a physical location of the device, a contact person for the device, a
5 phone number for the contact person, and an e-mail address for the contact person.

1 6. The system of Claim 1, wherein at least a portion of the wide area network
2 comprises the Internet.

1 7. The system of Claim 1, wherein the protocol comprises at least one of a simple
2 mail transfer protocol and an Internet mail access protocol.

1 8. The system of Claim 1, wherein at least a portion of at least one of the first
2 network and the second network comprises an intranet.

1 9. The system of Claim 1, wherein the digital repository comprises a database.

1 10. The system of Claim 1, wherein:
2 the computer readable medium is further encoded with processor readable instructions
3 that when executed by the processor further implements,
4 a device information storing mechanism configured to store the information collected
5 by the device information collecting mechanism in a first digital repository connected to the
6 first network; and
7 the device information sending mechanism is further configured to retrieve the
8 information from the first digital repository.

1 11. The system of Claim 10, wherein the digital repository comprises a database.

1 12. The system of Claim 1, wherein the processor readable instructions comprises at
2 least one of a dynamic link library, a static link library, a script, a JAVA class, a C++ class,
3 and a C library routine.

1 13. The system of Claim 1, wherein the network management protocol comprises a
2 simple network management protocol.

1 14. The system of Claim 1, wherein the device information receiving mechanism is
2 further configured to store the information in the digital repository through an open database
3 connectivity interface.

1 15. The system of Claim 10, wherein the device information storing mechanism is
2 further configured to store the information in the first digital repository through an open
3 database connectivity interface.

1 16. A method for remotely monitoring network devices, comprising the steps of:
2 collecting information from a device connected to a first network using a network
3 management protocol;
4 sending the information collected in the collecting step to a monitor connected to a
5 second network via a wide area network using a protocol;
6 receiving the information sent in the sending step by the monitor; and
7 storing the information received in the receiving step in a digital repository connected
8 to the second network.

1 17. The method of Claim 16, wherein the information comprises at least one of status
2 information corresponding to the device and configuration information corresponding to the
3 device.

1 18. The method of Claim 16, wherein the device comprises a printer.

1 19. The method of Claim 16, wherein at least a portion of the wide area network
2 comprises the Internet.

1 20. The method of Claim 16, wherein the network management protocol comprises a
2 simple network management protocol.

1 21. The method of Claim 16, wherein the protocol comprises at least one of a simple
2 mail transfer protocol and an Internet access protocol.

1 22. The method of Claim 16, wherein the digital repository comprises a database.

1 23. The method of Claim 16, further comprising the steps of:

2 storing the collected information collected in the in the collecting step in a first digital
3 repository; and
4 retrieving the information stored in the storing the collected information step from the
5 first digital repository.

1 24. The method of Claim 23, wherein the first digital repository comprises a
2 database.

1 25. A computer program product, comprising:
2 a computer storage medium; and
3 a computer program code mechanism embedded in the computer storage medium for
4 causing a computer to remotely monitor a device connected to a first network with a monitor
5 connected to a second network, the computer program code mechanism having,
6 a first computer code device configured to collect information from the device
7 using a network management protocol,
8 a second computer code device configured to send the information to the
9 monitor via a wide area network using a protocol,
10 a third computer code device configured to receive the information sent to the
11 monitor; and
12 a fourth computer code device configured to store the information received in
13 a digital repository connected to the second network.

1 26. The computer program product of Claim 25, wherein the information comprises
2 at least one of status information corresponding to the device and configuration information
3 corresponding to the device.

1 27. The computer program product of Claim 25, wherein the device comprises a
2 printer.

1 28. The computer program product of Claim 25, wherein at least a portion of the
2 wide area network comprises the Internet.

1 29. The computer program product of Claim 25, wherein the network management
2 protocol comprises a simple network management protocol.

1 30. The computer program product of Claim 25, wherein the protocol comprises at
2 least one of a simple mail transfer protocol and an Internet access protocol.

1 31. The computer program product of Claim 25, wherein the digital repository
2 comprises a database.

1 32. The computer program product of Claim 25, wherein the computer program code
2 mechanism further having,

3 a fifth computer code device configured to store the information collected by
4 the first computer code device in a first digital repository, and

5 a sixth computer code device configured to retrieve the information from the
6 first digital repository.

1 33. The computer program product of Claim 32, wherein the first digital repository
2 comprises a database.

1 34. A system for remotely monitoring network devices, comprising:

2 means for collecting information from a device connected to a first network using a
3 network management protocol;

4 means for sending the information collected in the collecting step to a monitor
5 connected to a second network via a wide area network using a protocol;

6 means for receiving the information sent in the sending step by the monitor; and

7 means for storing the information received in the receiving step in a digital repository
8 connected to the second network.

1 35. The system of Claim 34, wherein:

2 the network management protocol is a simple network management protocol; and

3 the protocol is at least one of a simple mail transfer protocol and an Internet mail
4 access protocol.